Honeywell

IS3480 Quantum*E*®

Scan Engine

User's Guide

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INTRODUCTION

Quantum*E*® is a miniature, omni-directional scanning engine with optional single-line scanning capability. The self-contained device is fully enclosed eliminating the need for an external window or custom enclosure. It is designed for use in OEM equipment such as price lookup systems and kiosks. Quantum*E* s slim design makes it ideal for integration and use with flat-screens.

Key Product Features

- Fully Automatic Scanning Operation
- Custom Configurable Scan Pattern
- User-Replaceable Single Cable Interface to Host (PowerLink Compatible)
- Decoding of All Standard 1D and GS1 DataBar™ (RSS) Bar Codes
- Data Editing
- Seven Beeper Tones
- Configurable Depth of Field
- Flash - Upgradeable Firmware
- CodeGate®
- Sunrise 2005 Compliant

SCANNER	INTERFACE
IS3480-11	RS485◈ and Full RS232
IS3480-38	RS232 Low Speed USB, Keyboard Emulation or Serial Emulation
IS3480-41	RS232/Light Pen Emulation
IS3480-47	Keyboard Wedge, Stand-Alone Keyboard and RS232 Transmit/Receive
IS3480-104	RS232 TTL, Laser Emulation

◈ *Applicable for IBM® Host applications.*

Scanner and Accessories

BASIC KIT COMPONENTS	
Part No.	Description
IS3480	Quantum*E* Scanner
00-02026	IS3480 Installation and User's Guide *
00-02407	MetroSelect® Configuration Guide *

* *Guides also available for download at www.honeywellaidc.com.*

OPTIONAL ACCESSORIES	
Part No.	Description
AC to DC Power Transformer - Regulated 5.2VDC @ 1A output.	
46-00525	90VAC to 255VAC United States, Canada and Japan
46-00526	90VAC to 255VAC Continental European
46-00527	90VAC to 255VAC United Kingdom
46-00528	90VAC to 255VAC Australia
46-00529	90VAC to 255VAC China
46-00530	90VAC to 255VAC India
59-59000-3 *(default)*	PowerLink cable with built in power jack straight cord, short strain relief
53-53000-3 *(optional)*	PowerLink cable with built in power jack coiled cord, long strain relief
** Contact a customer service representative for additional information on the MVC cable series and the host connections available.	
MVC**	Voltage Converter Cable ±12VDC to +5.2VDC

Other items may be ordered for the specific protocol being used. To order additional items, contact the dealer, distributor or customer service. See page 52 for contact information.

Scanner and Accessories

OPTIONAL ACCESSORIES	
Part No.	Description
59-59002x-3	Keyboard Wedge PowerLink cable
59-59020x-3	Stand Alone Keyboard PowerLink cable
59-59235x-N-3	Low Speed USB Non-Locking Communication Cable straight cord, short strain relief
35-35959	Utility Flex Cable
59-59249x-N-3	Communication Cable, Host end Not Terminated straight cord, short strain relief

REPLACEMENT PARTS	
Part No.	Description
36-01822x-3	Rubber Utility Seal

Other items may be ordered for the specific protocol being used. To order additional items, contact the dealer, distributor or customer service. See page 52 for contact information.

Maintenance

Smudges and dirt on the unit's window can interfere with the unit's performance. If the window requires cleaning, use only a mild glass cleaner containing no ammonia. When cleaning the window, spray the cleaner onto a lint free, non-abrasive cleaning cloth then gently wipe the window clean.

If the unit's case requires cleaning, use a mild cleaning agent that does not contain strong oxidizing chemicals. Strong cleaning agents may discolor or damage the unit's exterior.

Scanner Components

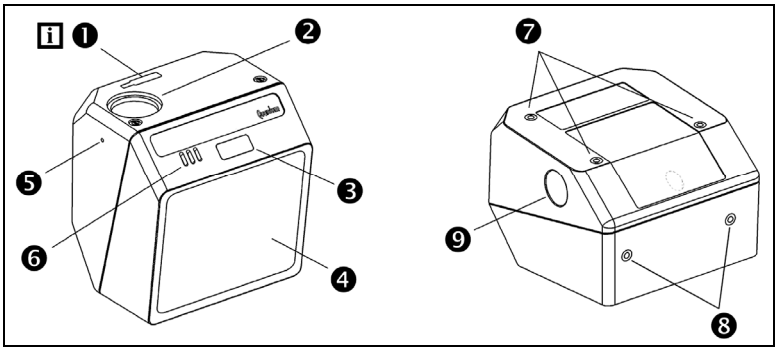


Figure 1a. Scanner Components

ITEM NO.	DESCRIPTION
1	Utility Connector Located Under Rubber Seal The rubber seal protecting the utility connector should only be removed if the utility connector is to be used.
2	10-Pin RJ45, Female Socket
3	Blue, White and Yellow LED Indicators
4	Red Output Window (Laser Aperture)
5	Pin Hole for Cable Release
6	Speaker
7	Three M2.5 x 0.45 Threaded Mounting Points
8	Two M2.5 x 0.45 Threaded Mounting Points
9	Button

Cable Removal

1. Locate the small 'pinhole' on the side of the Quantum*E* near the cable (*item 5 in figure 1a*).
2. Bend an ordinary paperclip into the shape shown.
3. Insert the paperclip (or other small metallic pin) into the 'pinhole'.
4. There will be a faint 'click' when the cable lock is released. Pull gently on the strain-relief of the PowerLink cable to remove it from the scanner.

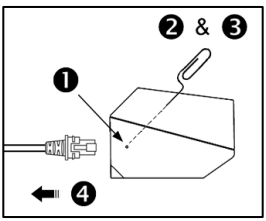


Figure 1b.

Caution and Serial Number Labels

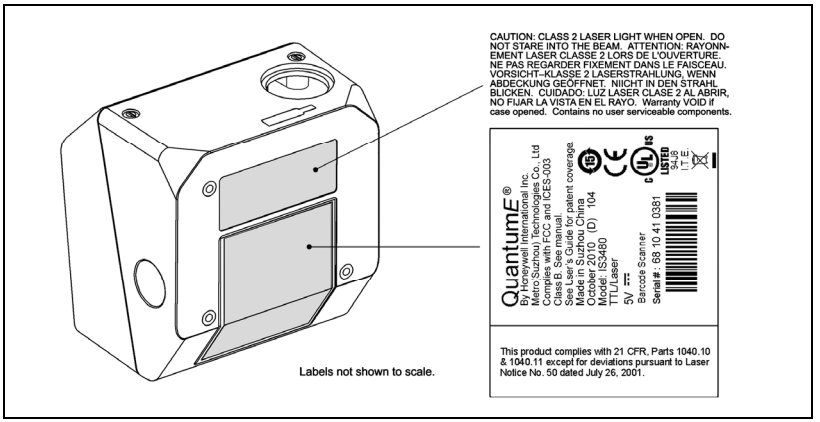

CAUTION: CLASS 2 LASER LIGHT WHEN OPEN. DO NOT STARE INTO THE BEAM. ATTENTION: RAYONNEMENT LASER CLASSE 2 LORS DE L'OUVERTURE. NE PAS REGARDER FIXEMENT DANS LE FAISCEAU. VORSICHT–KLASSE 2 LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT IN DEN STRAHL BLICKEN. CUIDADO: LUZ LASER CLASE 2 AL ABRIR, NO FIJAR LA VISTA EN EL RAYO. Warranty VOID if case opened. Contains no user serviceable components.
QuantumE®
Symbol Technologies, Inc.
Bar Code Scanner
Model: DS3480
Serial#: 68 10 41 0381
This product complies with 21 CFR, Parts 1040.10 & 1040.11 except for deviations pursuant to Laser Notice No. 50 dated July 26, 2001.
Labels not shown to scale.

Figure 2.

Caution
To maintain compliance with applicable standards, all circuits connected to the scanner must meet the requirements for SELV (Safety Extra Low Voltage) according to EN/IEC 60950-1.

To maintain compliance with standard CSA C22.2 No. 60950-1/UL 60950-1 and norm EN/IEC 60950-1, the power source should meet applicable performance requirements for a limited power source.

Mounting Specifications

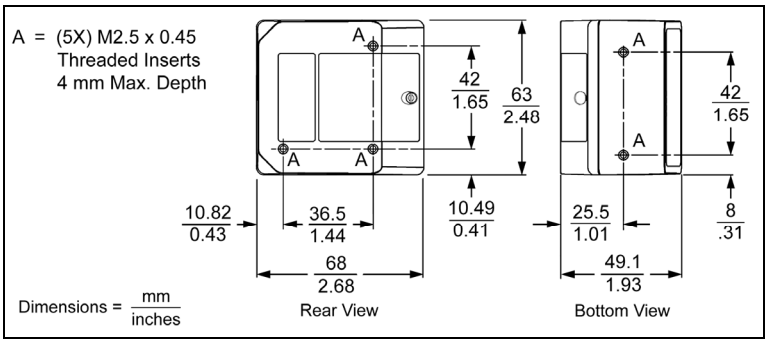


Figure 3.

RS232, RS232 TTL, Light Pen or Laser Emulation

1. Turn off the host device.
2. Plug the male 10-pin RJ45 end of the PowerLink cable into the 10-pin socket on the IS3480.
3. Connect the 9-pin female end of the PowerLink cable to the host device.

   Note: Skip to step 6 if receiving power from the host device.

4. Plug the external power supply into the power jack on the PowerLink cable.

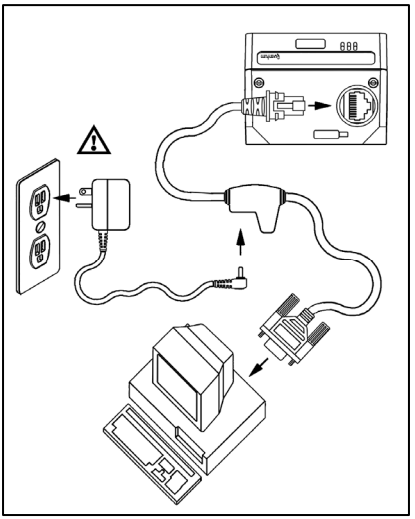


Figure 4.

> STOP Check the AC input requirements of the power supply to make sure the voltage matches the AC outlet. The outlet must be located near the equipment and be easily accessible.

5. Connect AC power to the transformer.
6. Turn on the host device.

> When the scanner first receives power, the blue LED will turn on; the scanner will simultaneously beep once and flash the white LED.

> Plugging the scanner into the serial port of the PC does not guarantee that scanned information will appear at the PC. A software driver and correct configuration setting are also required for proper communication to occur.

> See page 5.

RS485◈

1. Turn off the host device.
2. Plug the male 10-pin RJ45 end of the MVC cable into the 10-pin socket on the IS3480.
3. Connect the other end of the MVC cable to the host device.
4. Turn on the host device.

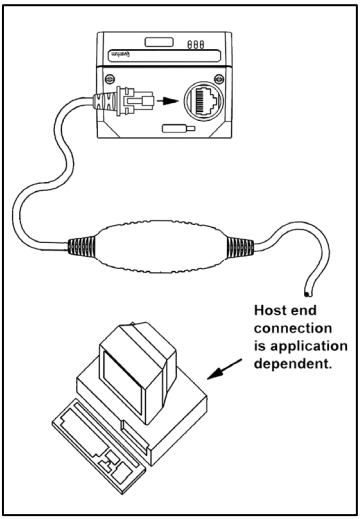


Figure 5.

When the scanner first receives power, the blue LED will turn on; the scanner will simultaneously beep once and flash the white LED.

Plugging the scanner into the serial port of the PC does not guarantee that scanned information will appear at the PC. A software driver and correct configuration setting are also required for proper communication to occur.

See page 5.

◈ *Applicable for IBM® Host applications.*

Keyboard Wedge

1. Turn off the host device.
2. Plug the male 10-pin RJ45 end of the PowerLink cable into the 10-pin socket on the IS3480.
3. Disconnect the keyboard from the host device.
4. Connect the “Y” end of the PowerLink cable to the keyboard and the keyboard port on the host device. If necessary, use the male/female adapter cable supplied with the scanner for proper connections.
5. Plug the external power supply into the power jack on the PowerLink cable.

> STOP Check the AC input requirements of the power supply to make sure the voltage matches the AC outlet. The outlet must be located near the equipment and be easily accessible.

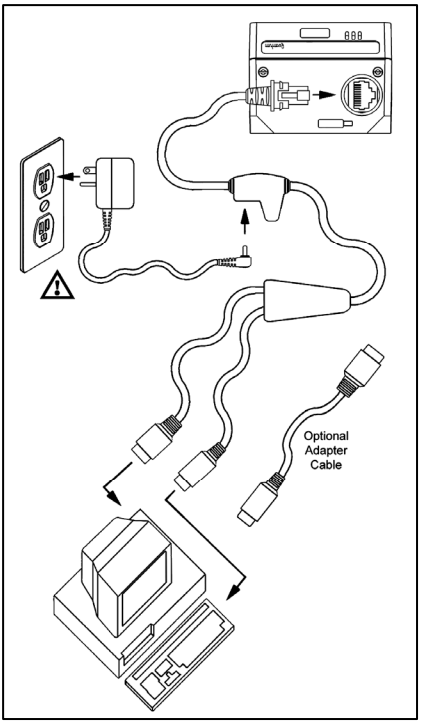


Figure 6.

6. Connect AC power to the transformer.
7. Turn on the host device.

> When the scanner first receives power, the blue LED will turn on; the scanner will simultaneously beep once and flash the white LED.

> Powering the IS3480 directly from the host device can sometimes cause interference with the operation of the scanner or the computer. Not all computers supply the same current through the keyboard port. For this reason, Honeywell recommends using an external power supply. For additional information, contact a customer service representative.

> ⚠ See page 5.

Stand-Alone Keyboard

1. Turn off the host device.
2. Plug the male 10-pin RJ45 end of the PowerLink cable into the 10-pin socket on the IS3480.
3. Connect the other end of the PowerLink cable to the keyboard port on the host device.
4. Plug the external power supply into the power jack on the PowerLink cable.

> STOP Check the AC input requirements of the power supply to make sure the voltage matches the AC outlet. The outlet must be located near the equipment and be easily accessible.

5. Connect AC power to the transformer.
6. Turn on the host device.

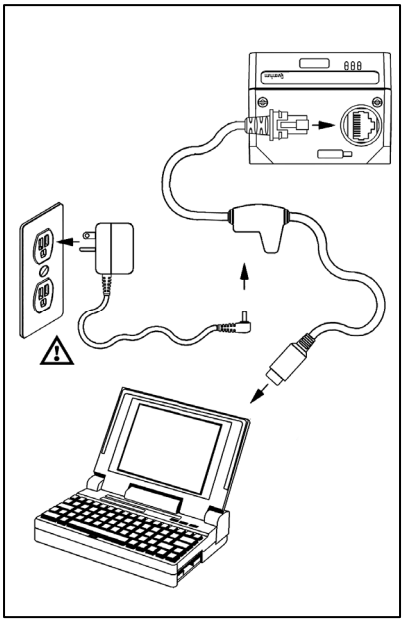


Figure 7.

> When the scanner first receives power, the blue LED will turn on; the scanner will simultaneously beep once and flash the white LED.

> Powering the IS3480 directly from the host device can sometimes cause interference with the operation of the scanner or the computer. Not all computers supply the same current through the keyboard port. For this reason, Honeywell recommends using an external power supply. For additional information contact a customer service representative.

> See page 5.

Low Speed USB (Integrated)

1. Turn off the host device.
2. Plug the male 10-pin RJ45 end of the USB PowerLink cable into the 10-pin socket on the IS3480.
3. Plug the other end of the USB interface cable into the host device's USB port.
4. Turn on the host device.

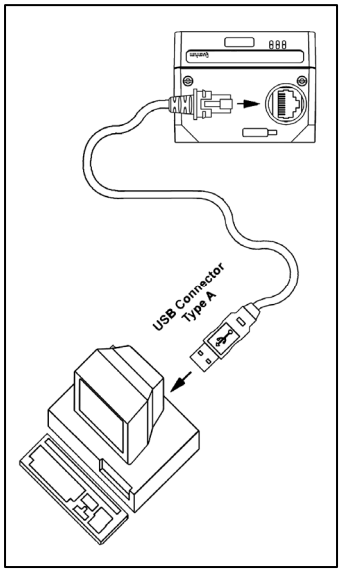


Figure 8.

> As a default, the IS3480-38 leaves the factory with USB Keyboard Emulation Mode enabled.
>
> For information on configuring the IS3480-38 for USB Serial Emulation Mode, please refer to *Section P: Low Speed USB* in the MetroSelect Configuration Guide (MLPN 00-02407).

> When the scanner first receives power, the blue LED will turn on; the scanner will simultaneously beep once and flash the white LED.

> Plugging the scanner into the USB port of the PC does not guarantee that scanned information will appear at the PC. A software driver and correct configuration setting are also required for proper communication to occur.

See page 5.

Notes for Laser Emulation

IS3480-104 Only

The IS3480-104 leaves the factory with the Laser Emulation Mode enabled. If the Recall Defaults bar code is scanned while reconfiguring the scanner, the laser emulation mode will no longer be enabled.

Scan the following bar code to re-enable the laser emulation interface. This feature is only supported for IS3480-104 models.

Enable Laser Emulation Mode

Configurable Primary and Secondary Scan Pattern Modes

There are two configurable scan pattern modes available with the IS3480.

- The **primary** scan pattern mode is the default scan pattern active when the scanner starts.
- The **secondary** scan pattern mode is activated by pressing the button located on the side of the scanner. This mode is also referred to as the button mode. For additional information on Quantum*E*'s button modes and an example of each, please refer to *Configurable Button Functions* below.

> The scanner returns to the primary scan pattern mode after a double click of the button or if the unit has not scanned a bar code for the duration of a pre-configured time limit.

Each pattern mode can be configured to use one of three scan patterns listed below. Please refer to the MetroSelect Configuration Guide for information on changing the default scan pattern settings.

- all scan lines on (omnidirectional reading)
- single-line (menu reading)
- horizontal raster

> If CodeGate is *enabled*, it will apply to the secondary pattern mode when scanning. For detailed information on CodeGate and the button refer to the *Configurable Button Functions*.

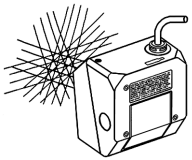
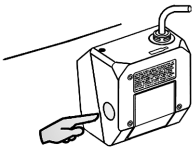
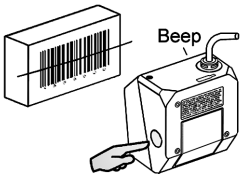
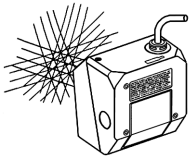
Configurable Button Functions

The button on the side of the IS3480 can be configured to function in one of four modes.

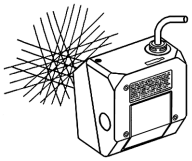
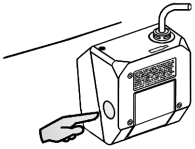
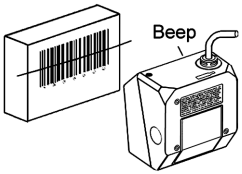
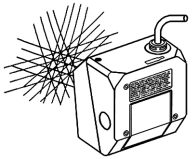
- Button *Click* Mode, with CodeGate Enabled (Default)
- Button *Click* Mode, with CodeGate Disabled
- Button *Hold* Mode, with CodeGate Enabled
- Button *Hold* Mode, with CodeGate Disabled

The following pages include examples of how the button will function when the unit has been configured to operate in each of the four button modes.

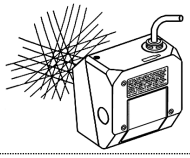
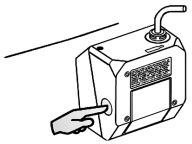
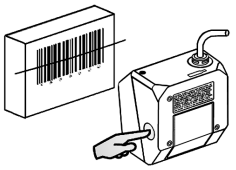
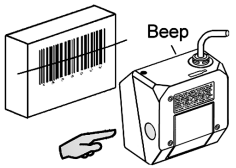
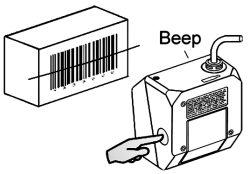
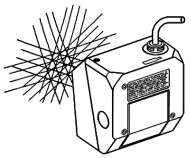
Configurable Button Functions

SECONDARY SCAN PATTERN BUTTON CLICK MODE WITH CODEGATE ENABLED	
	For illustration purposes the unit's primary scan pattern has been set to *all scan lines (omnidirectional reading)* and the secondary pattern has been set to *single-line (menu reading)* with a 10 second button click timeout configured.
	1. The primary scan pattern is active when the scanner starts.
	2. To activate the secondary scan pattern, **press** and **release** the button.
	3. To decode and transmit the bar code, **press** and **release** the button. The scanner will beep once.
	4. To reactivate the primary scan pattern, **double click** the button or after 10-seconds of no-scanning the unit will automatically reactivate the primary pattern.

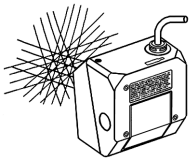
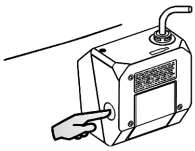
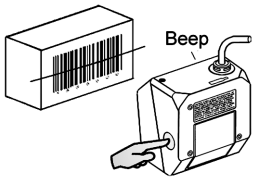
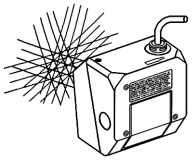
Configurable Button Functions

SECONDARY SCAN PATTERN BUTTON CLICK MODE WITH CODEGATE DISABLED	
For illustration purposes the unit's primary scan pattern has been set to *all scan lines (omnidirectional reading)* and the secondary pattern has been set to *single-line (menu reading)* with a 10 second button click timeout configured.	
	1. The primary scan pattern is active when the scanner starts.
	2. To activate the secondary scan pattern, **press** and **release** the button.
	3. The unit will beep once as it decodes and transmits the bar code.
	4. To reactivate the primary scan pattern, **double click** the button or after 10-seconds of no-scanning the unit will automatically reactivate the primary pattern.

Configurable Button Functions

SECONDARY SCAN PATTERN BUTTON HOLD MODE WITH CODEGATE ENABLED	
For illustration purposes the unit's primary scan pattern has been set to *all scan lines (omnidirectional reading)* and the secondary pattern has been set to *single-line (menu reading)* with a 10 second button click timeout configured.	
	1. The primary scan pattern is active when the scanner starts.
	2. To activate the secondary scan pattern, **press** and **hold** the button.
	3. To scan the bar code, **align** the laser line over the bar code while continuing to **hold** down the button.
	4. To transmit the bar code, **release** the button. The scanner will beep once.
	5. To scan and transmit additional bar codes, **repeat** steps 2 through 4.
	6. The primary scan pattern will automatically reactivate after the button is released and no bar code is present in the scan field.

Configurable Button Functions

SECONDARY SCAN PATTERN BUTTON HOLD MODE WITH CODEGATE DISABLED	
For illustration purposes the unit's primary scan pattern has been set to *all scan lines (omnidirectional reading)* and the secondary pattern has been set to *single-line (menu reading)* with a 10 second button click timeout configured.	
	1. The primary scan pattern is active when the scanner starts.
	2. To activate the secondary scan pattern, **press** and **hold** the button.
	3. To scan and transmit the bar code, **align** the laser line over the bar code while continuing to **hold** down the button. The scanner will beep once to indicate the bar code has been scanned and transmitted.
	4. The primary scan pattern will automatically reactivate after the button is released and no bar code is present in the scan field.

Sweet Spot Mode

The *sweet spot mode* is used to determine where the maximum read rate area or "sweet spot" is located for a specific bar code type. When activated this mode provides visual and audible feedback indicating how the scanner is scanning.

Number of Illuminated LEDs	Beeper Pitch		% of Maximum Read Rate
4	high		81 - 100%
3			61 - 80%
2			41 - 60%
1			21 - 40%
0	low		0 - 20%

For further information on the sweet spot mode and instructions on how to enable it, refer the MetroSelect Configuration Guide (00-02407).

Audible Indicators

When the IS3480 is in operation, it can provide audible feedback. These sounds indicate the status of the scanner. Eight settings are available for the tone of the beep (normal, six alternate tones and no tone). For instruction on how to change the tone of the beeper, refer to the MetroSelect Configuration Guide (00-02407).

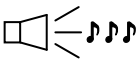
One Beep

When the scanner *first* receives power the white LED will flash, the blue LED will turn on and the scanner will beep once (*the white LED will remain on for the duration of the beep*). The scanner is now ready to scan.

When the scanner *successfully* reads a bar code, the white LED will flash and the scanner beeps once (*if configured to do so*). If the scanner does not beep once and the white light does not flash, then the bar code has *not* been successfully read.

Razzberry Tone

This is a failure indicator. Refer to *Failure Mode Indicators* on page 20.

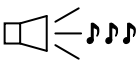


Three Beeps - during operation

When placing the scanner in configuration mode, the white LED will flash while the scanner simultaneously beeps three times. The white and blue LEDs will continue to flash until the unit exits configuration mode. Upon exiting configuration mode, the scanner will beep three times and the white LED will stop flashing.

When configured, three beeps can also indicate a communications timeout during normal scanning mode.

When using one-code-programming, the scanner will beep three times: the current selected tone, followed by a short pause, a high tone and a low tone. This tells the user that the single configuration bar code has *successfully* configured the scanner.



Three Beeps - on power up

This is a failure indicator. Refer to *Failure Mode Indicators* on page 20.

Visual Indicators

There are four LEDs located on the top of the IS3480. When the scanner is on, the flashing or constant illumination of the LEDs indicates the status of the current scan and the scanner.

No LEDs

The LEDs will not be illuminated if the scanner is not receiving power from the host or transformer. They are also not illuminated when all lasers are turned off for any reason.

Steady Blue

When the laser is active, the blue LED is illuminated. The blue LED will remain illuminated until the laser is deactivated.

Steady Blue and Single White Flash

When the scanner successfully reads a bar code, the white LED will flash and the scanner will beep once. If the white LED does not flash or the scanner does not beep once, then the bar code has not been successfully read.

Steady White and Blue

After a successful scan, the scanner transmits the data to the host device. Some communication modes require that the host inform the scanner when data is ready to be received. If the host is not ready to accept the information, the scanner's white LED will remain on until the data can be transmitted.

Alternating Blue and White Flashes

This indicates the scanner is in program mode. A razzberry tone indicates that an invalid bar code has been scanned in this mode.

Steady White, Blue Off

This indicates the scanner may be waiting for communication from the host.

Failure Mode Indicators

Flashing Blue and One Razzberry Tone

This indicates that the scanner has experienced a laser subsystem failure. Return the unit to an authorized service center for repair.

Flashing Blue and White and Two Razzberry Tones

This indicates that the scanner has experienced a motor failure. Return the unit to an authorized service center for repair.

Continuous Razzberry Tone with Both LEDs Off

If, upon power up, the scanner emits a continuous razzberry tone, then the scanner has an electronic failure. Return the unit to an authorized service center for repair.

Three Beeps - On Power Up

If the scanner beeps three times on power up then, the nonvolatile memory that holds the scanner configuration has failed. Return the unit to an authorized service center for repair.

Depth of Field Specifications*

Normal Scan Zone

Specifications are based on a 0.33 mm (13 mil) bar code.

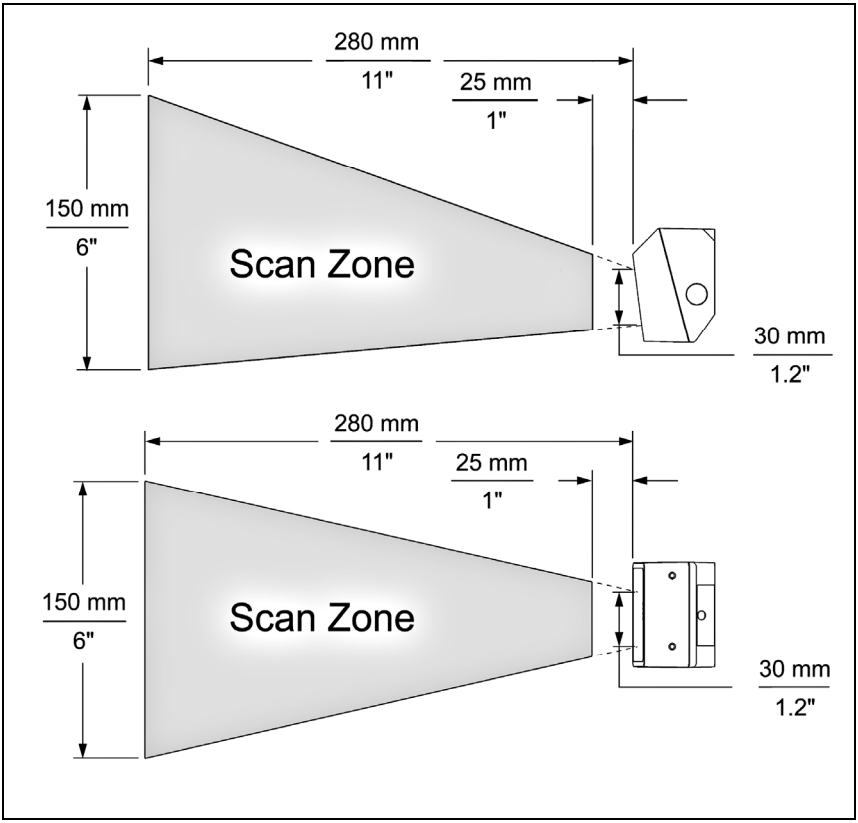


Figure 9. Normal Depth of Field

* *All specifications are subject to change without notice.*

Depth of Field Specifications*

Reduced Scan Zone

Specifications are based on a 0.33 mm (13 mil) bar code.

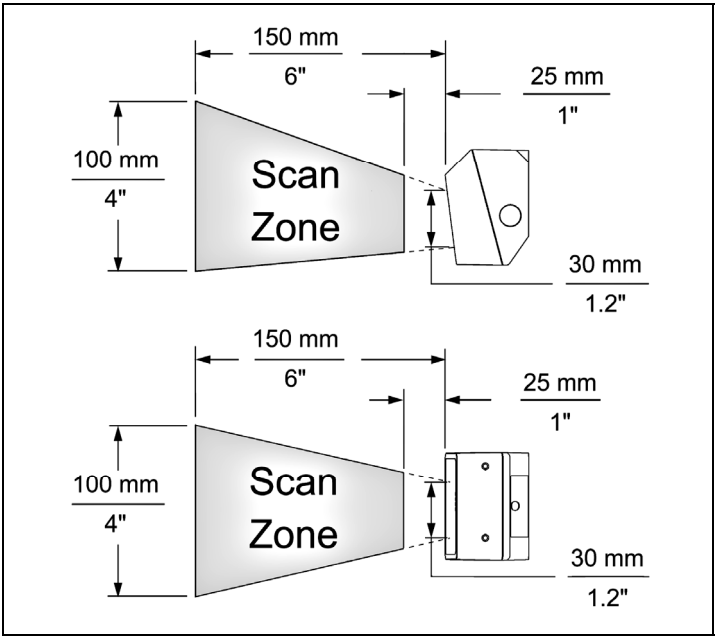
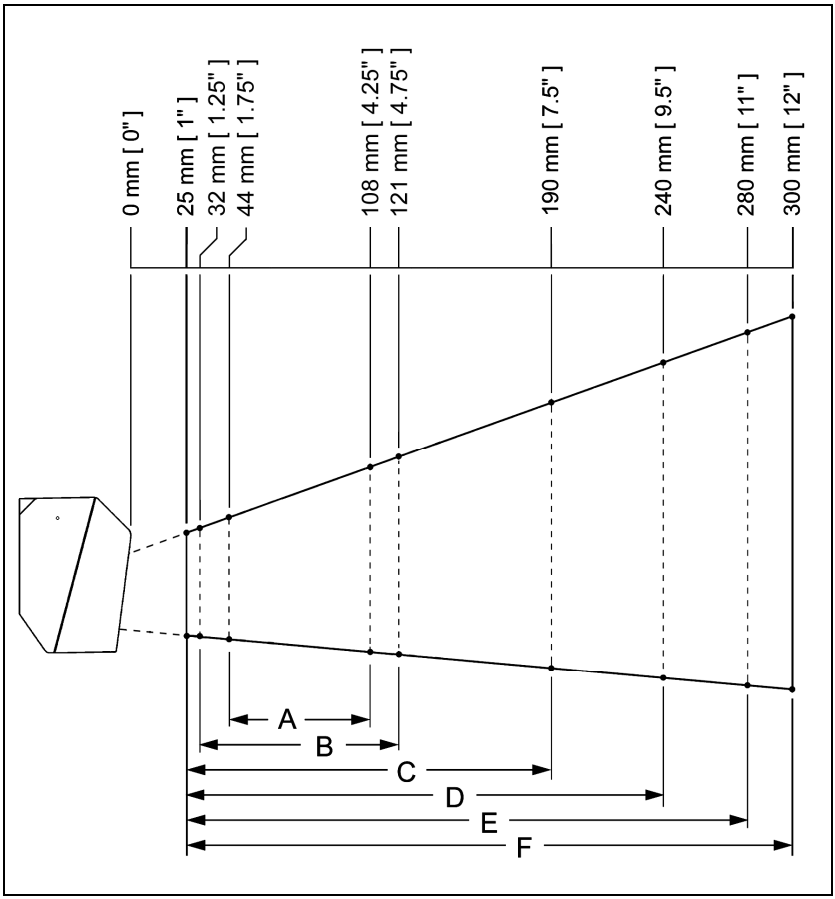


Figure 10. Reduced Depth of Field

** All specifications are subject to change without notice.*

Depth of Field by Bar Code Element Width*

Normal Scan Zone



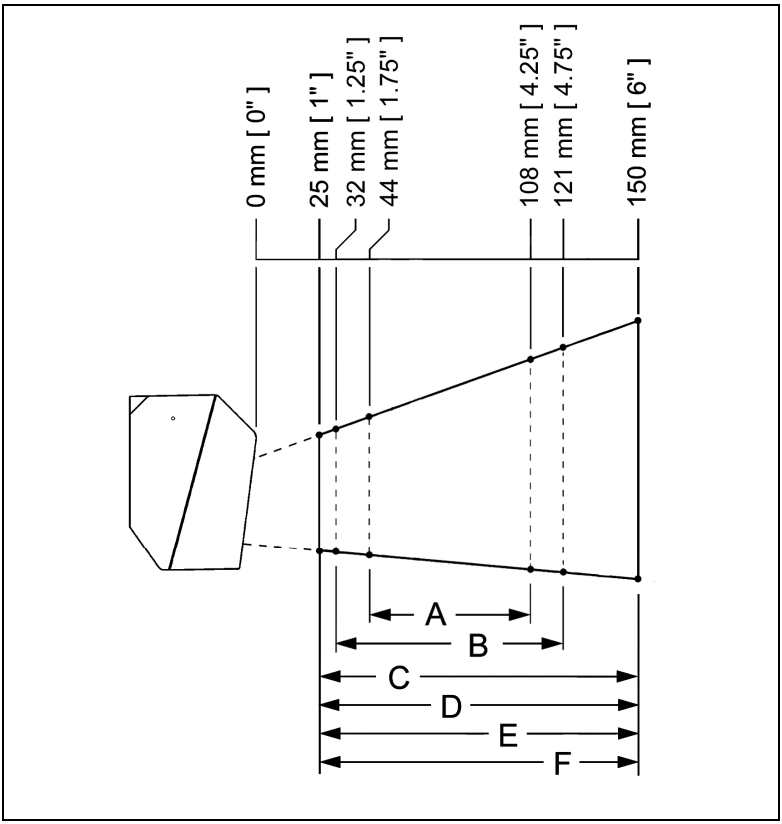
MINIMUM BAR CODE ELEMENT WIDTH						
	A	**B**	**C**	**D**	**E**	**F**
mm	.13	.15	.19	.25	.33	.66
mils	5.2	5.7	7.5	10	13	26

Figure 11. Normal Scan Zone by Bar Code Element Width

** All specifications are subject to change without notice.*

Depth of Field by Bar Code Element Width*

Reduced Scan Zone



MINIMUM BAR CODE ELEMENT WIDTH						
	A	**B**	**C**	**D**	**E**	**F**
mm	.13	.15	.19	.25	.33	.66
mils	5.2	5.7	7.5	10	13	26

Figure 12. Reduced Scan Zone by Bar Code Element Width

** All specifications are subject to change without notice.*

IR Activation Range*

Quantum*E*'s default power save mode† is *Laser OFF*. This power save mode turns the laser off after a configured period of non-use. Any movement detected by the IR in the activation area will cause the scanner to exit power save mode. The laser will automatically turn back on preparing the scanner for bar code recognition, decoding and transmission.

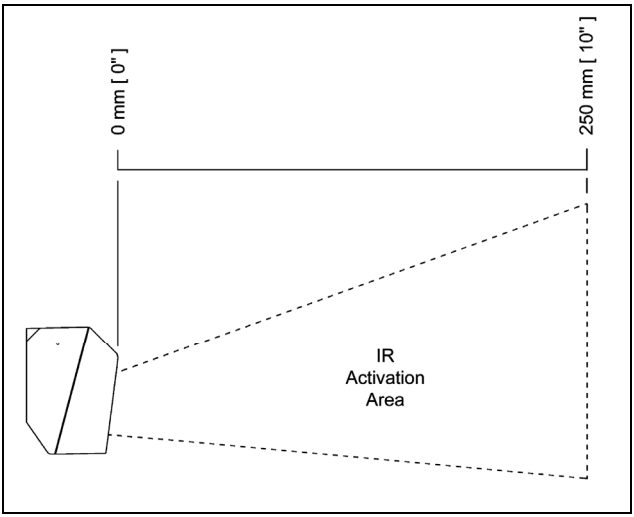


Figure 13. IR Activation Range

* *All specifications are subject to change without notice.*

† *Refer to the MetroSelect Configuration Guide (00-02407) for additional information on configurable power save modes.*

TROUBLESHOOTING GUIDE

The following guide is for reference purposes only. Contact a Honeywell representative to preserve the limited warranty terms on page 47.

Symptoms	Possible Cause(s)	Solution
All Interfaces		
The unit has no LEDs, beeper or motor spin.	No power is being supplied to the scanner.	Check the transformer, outlet and power strip. Make sure the cable is plugged into the scanner.
The unit has no LEDs and/or beeper.	No power is being supplied to the scanner from host.	Some host systems cannot supply enough current to power the IS3480. Use the power supply included with the scanner.
There are multiple scans upon presentation of code.	The same symbol timeout is set too short.	Adjust the same symbol timeout for a longer time increment.
The unit powers up but does not beep.	The beeper is disabled.	Enable the beeper.
	No tone is selected.	Select a tone.
The unit powers up but does not scan and/or beep.	The unit is trying to scan a particular symbology that is not enabled.	UPC/EAN, Code 39, Interleaved 2 of 5, Code 93, Code 128 and Codabar are enabled by default. Verify that the type of bar code being read has been selected
	The scanner has been programmed for a character length lock, or a minimum length and bar code being scanned does not satisfy the configured criteria.	Verify that the bar code that is being scanned falls into the criteria. *Typical of Non-UPC/EAN codes. The scanner defaults to a minimum of 4 character bar code.*
The unit scans but the data transmitted to the host is incorrect.	The scanner's data format does not match the host system requirements.	Verify that the scanner's data format matches the format required by the host. Make sure that the scanner is connected to the proper host port.

Symptoms	Possible Cause(s)	Solution
All Interfaces		
The unit scans a bar code, but locks up after the first scan (*the white LED stays on*).	The scanner is configured to support some form of host handshaking but is not receiving the signal.	If the scanner is setup to support ACK/NAK, RTS/CTS, XON/XOFF or D/E, verify that the host cable and host are supporting the handshaking properly.
Scanner beeps at some bar codes and NOT for others of the same bar code symbology.	The bar code may have been printed incorrectly.	Check if it is a check digit, character or border problem.
	The scanner is not configured correctly for the type of bar code.	Check if check digits are set properly.
	The minimum symbol length setting does not work with the bar code.	Check if the correct minimum symbol length is set.
During power up the unit beeps three times.	There is a non-volatile RAM failure.	Contact a service representative.
During power up the unit razzes continuously.	There has been a diagnostic failure.	Contact a service representative.
During power up the unit razzes once and the blue LED flashes.	There is a VLD failure.	Contact a service representative.
During power up the unit razzes twice and both LEDs flash.	There is a scanner motor failure.	Contact a service representative.

Symptoms	Possible Cause(s)	Solution
RS232 Only		
The unit powers up OK and scans OK but does not communicate properly to the host.	The com port at the host is not working or is not configured properly.	Check to make sure that the baud rate and parity of the scanner and the communication port match and that the program is looking for RS232 data.
	The cable is not connected to the proper com port.	
	The com port is not operating properly.	
The host is receiving data but the data does not look correct.	The scanner and host may not be configured for the same interface.	Check that the scanner and the host are configured for the same interface.
Characters are being dropped.	The intercharacter delay needs to be added to the transmitted output.	Add some intercharacter delay to the transmitted output by using the MetroSelect Configuration Guide (MLPN 00-02407).
Keyboard Wedge Only		
The unit scans the bar code but there is no data.	The unit may not be configured correctly.	Make sure the scanner is configured for the appropriate mode.
The unit scans but the data is not correct.	The unit may not be configured correctly.	Make sure that the proper PC type (ie. AT or PS2) is selected.
		Verify correct country code and data formatting are selected.
		Adjust the intercharacter delay.
The unit is not transmitting each character.	The unit may not be configured correctly.	Increase the interscan code delay setting. Adjust whether the F0 break is transmitted. It may be necessary to try both settings.
Alpha characters show as lower case.	The computer is in caps lock mode.	Enable *caps lock detect* setting of the scanner to detect whether the PC is operating in caps lock.
Everything works except for a couple of characters.	These characters may not be supported by the current country's key look up table.	Try operating the scanner in *Alt Mode*.

	IS3480	
Operational		
Normal Depth of Field:	25 mm - 280 mm (1"- 11")	0.33 mm (13 mil) bar code
Reduced Depth of Field:	25 mm - 150 mm (1"- 6")	
Omni Scan		
Scan Speed:	1650 scan lines per second	
No. of Scan Lines:	20	
Single-Line		
Scan Speed:	80 scan lines per second	
No. of Scan Lines:	1	
Raster		
Scan Speed:	320 scan lines per second	
No. of Scan Lines	4	
Motor Speed:	5000 RPM	
Min Bar Width:	0.127 mm (5.0 mil)	
Decode Capability:	All standard 1-D bar codes including GS1 DataBar	
System Interfaces:	RS232, Keyboard Wedge, Stand-Alone Keyboard, Light Pen Emulation, RS485◈, Low Speed USB (Keyboard Emulation /Serial Emulation), Laser Emulation, RS232 TTL	
Print Contrast:	35% minimum reflectance difference	
No. Characters Read:	Up to 80 data characters Maximum number will vary based on symbology and density.	
Beeper Operation:	7 tones or no beep	
Indicators (LED):	Blue = laser on, ready to scan	
	White = good read, decoding	
Embedded Laser		
Max Optical Power:	10 mW	
Wavelength:	640 – 660 nm	
Min Bean Divergence:	6°	

◈ *Applicable for IBM® Host applications.*

Specifications subject to change without notice.

	IS3480
Mechanical	
Width:	63 mm (2.48")
Depth:	50 mm (1.97")
Height:	68 mm (2.68")
Weight:	6 oz (170 g)
Electrical	
Voltage Supply:	5VDC ± 0.25V
Operating Power:	1.375 W
Standby Power:	1.0 W
Operating Current:	275 mA typical at 5VDC
Standby Current:	200 mA typical at 5VDC
DC Transformers:	Class II; 5.2VDC @ 1A
For regulatory compliance information, see pages 44 – 46.	
Environmental	
Operating Temperature:	-20°C to 40°C (-4°F to 104°F)
Storage Temperature:	-40°C to 60°C (-40°F to 140°F)
Humidity:	5% to 95% relative humidity, non-condensing
Contaminants:	Sealed to resist airborne particulate contaminants
Ventilation:	None required

Specifications subject to change without notice.

APPLICATIONS AND PROTOCOLS

The model number on each scanner includes the scanner number and factory default communications protocol.

SCANNER	VERSION IDENTIFIER	COMMUNICATION PROTOCOL(S)
IS3480	11	RS485◈ and Full RS232C
	38	RS232 Low Speed USB, Keyboard Emulation or Serial Emulation
	41	Full RS232C/Light Pen Emulation
	47	Keyboard Wedge, Stand-Alone Keyboard and RS232 Transmit/Receive
	104	RS232 **T**ransistor to **T**ransistor **L**ogic (TTL), Laser Emulation

◈ *Applicable for IBM® Host applications.*

The IS3480 scanner with Built-in PC Keyboard Wedge Interface is designed to be used for keyboard emulation only. Many RS232 configurable functions (e.g. formatting) available in other Honeywell scanners are also available as keyboard wedge functions.

The following are the most important selectable options specific to the keyboard wedge.

Keyboard Type

- ** AT (includes IBM® PS2 models 50, 55, 60, 80)
- IBM PS2 (includes models 30, 70, 8556)

Keyboard Country Type

- USA **
- Belgium
- French
- German
- Hungarian
- Italian
- Japanese
- Russian Cyrillic
- Slovenian
- Spanish
- Swiss
- Swedish/Finnish
- Turkish
- United Kingdom

** Default setting. Refer to the MetroSelect® Configuration Guide (MLPN 00-02407) or MetroSet2's help files for information on how to change the default settings.

CONFIGURATION MODES

The IS3480 Series scanner has three modes of configuration.

- **Bar Codes**
  The IS3480 can be configured by scanning the bar codes included in the Single-Line Configuration Guide or the Supplemental Configuration Guide. The manuals are available for download at www.honeywellaidc.com.

- **MetroSet2**
  This user-friendly Windows®-based configuration program allows you to simply 'point-and-click' at the desired imager options. MetroSet2 is available for download at www.honeywellaidc.com.

- **Serial Programming**
  This mode of configuration is ideal for OEM applications. Serial programming mode gives the end-user the ability to send a series of commands using the serial port of the host system. The commands are equivalent to the numerical values of the bar codes located in the MetroSelect Single-Line Configuration Guide.

UPGRADING THE FIRMWARE

The IS3480 is part of Honeywell's line of scanners with flash upgradeable firmware. The upgrade process requires, a new firmware file supplied to the customer by a customer service representative◆ and Honeywell's MetroSet*2* software◆◆. A personal computer running Windows 95 or greater with an available RS232 serial or USB port is required to complete the upgrade.

> **Do not** use the standard cable supplied with Keyboard Wedge or RS485◈ IS3480 interface kits for firmware upgrades. If using USB or RS232 for the upgrade process, the standard USB or RS232 cable provided with the scanner can be used.

To upgrade the firmware in the IS3480:

1. Plug the scanner into a serial communication port on the host system.
2. Start the MetroSet*2* software.
3. Click on the plus sign (+) next to *POS Scanners* to expand the supported scanner list.
4. Choose the *Quantum E/T* from the list.
5. Click on the *Configure Quantum E/T Scanner* button.
6. Choose *Flash Utility* from the options list located on the left side of the screen.
7. Click on the *Open File* button in the Flash Utility window.
8. Locate and open the flash upgrade file supplied.
9. Select the COM port that the scanner is connected to on the host system.
10. Verify the settings listed in the Flash Utility window.
11. Click on the *Flash Scanner* button to begin the flash upgrade.
12. A message will appear on the screen when the upgrade is complete.

◆ See Contact Information on page 47.

◆◆ MetroSet*2* is available for download, at no additional cost, from www.honeywellaidc.com.

◈ *Applicable for IBM® Host applications.*

DEFAULT SETTINGS - COMMUNICATION PARAMETERS

Many functions of the scanner can be "configured" - that is enabled or disabled. The scanner is shipped from the factory configured to a set of default conditions. The default parameter of the scanner has an asterisk (*) in the charts on the following pages. If an asterisk is not in the default column then the default setting is Off or Disabled. Not every interface supports every parameter. If the interface supports a parameter listed in the charts on the following pages, a check mark (✓) will appear.

PARAMETER	DEFAULT	USB	RS232* OR RS232 TTL	LIGHT PEN	RS485◈	KBW	LASER EMULATION
UPC/EAN	*	✓	✓	✓	✓	✓	✓
Code 128	*	✓	✓	✓	✓	✓	✓
Code 93	*	✓	✓	✓	✓	✓	✓
Codabar	*	✓	✓	✓	✓	✓	✓
Interleaved 2 of 5 (ITF)	*	✓	✓	✓	✓	✓	✓
MOD 10 Check on ITF		✓	✓	✓	✓	✓	✓
Code 11		✓	✓	✓	✓	✓	✓
Code 39	*	✓	✓	✓	✓	✓	✓
Full ASCII Code 39		✓	✓	✓	✓	✓	✓
MOD 43 Check on Code 39		✓	✓	✓	✓	✓	✓
MSI-Plessey		✓	✓	✓	✓	✓	✓
MSI-Plessey 10/10 Check Digit		✓	✓	✓	✓	✓	✓
MSI-Plessey MOD 10 Check Digit		✓	✓	✓	✓	✓	✓
Paraf Support		✓	✓	✓	✓	✓	✓
ITF Symbol Lengths	Variable	✓	✓	✓	✓	✓	✓
Minimum Symbol Length	4	✓	✓	✓	✓	✓	✓
Symbol Length Lock	None	✓	✓	✓	✓	✓	✓
GS1 DataBar Enable		✓	✓	✓	✓	✓	✓
GS1 DataBar ID “]e0”	*	✓	✓	✓	✓	✓	✓
GS1 DataBar App ID “01”	*	✓	✓	✓	✓	✓	✓
GS1 DataBar Check Digit	*	✓	✓	✓	✓	✓	✓
GS1 DataBar Expanded Enable		✓	✓	✓	✓	✓	✓

◈ *Applicable for IBM® Host applications.*

DEFAULT SETTINGS - COMMUNICATION PARAMETERS

PARAMETER	DEFAULT	USB	RS232* OR RS232 TTL	LIGHT PEN	RS485◈	KBW	LASER EMULATION
Expanded ID "]e0"	*	✓	✓	✓	✓	✓	✓
GS1 DataBar Limited Enable		✓	✓	✓	✓	✓	✓
GS1 DataBar Limited ID "]e0"	*	✓	✓	✓	✓	✓	✓
GS1 DataBar Limited App ID "01"	*	✓	✓	✓	✓	✓	✓
GS1 DataBar Limited Check Digit	*	✓	✓	✓	✓	✓	✓
Bars High as Code 39	*			✓			✓
Spaces High as Code 39				✓			✓
Bars High as Scanned				✓			✓
Spaces High as Scanned				✓			✓
DTS/SIEMENS							
DTS/NIXDORF	*						
NCR F							
NCR S							
Poll Light Pen Source				✓			
Beeper Tone	Normal	✓	✓	✓	✓	✓	✓
Beep/Transmit Sequence	Before Transmit	✓	✓	✓	✓	✓	✓
Communication Timeout	None	✓	✓	✓	✓	✓	✓
Razzberry Tone on Timeout		✓	✓	✓	✓	✓	✓
Three Beeps on Timeout		✓	✓	✓	✓	✓	✓
No Beeps on Timeout	*	✓	✓	✓	✓	✓	✓
Enter Power Save Mode	10 mins.	✓	✓	✓	✓	✓	✓
Same Symbol Rescan Timeout: 500 msecs Programmable in 50 msec steps (MAX 6.35 seconds)	*	✓	✓	✓	✓	✓	✓
Intercharacter Delay Programmable in 1 msec steps (MAX 255 msecs)	1 msecs 10 msecs in KBW	✓	✓		✓	✓	
Number of Scan Buffers	1	✓	✓	✓	✓	✓	✓

◈ *Applicable for IBM® Host applications.*

PARAMETER	DEFAULT	USB	RS232* OR RS232 TTL	LIGHT PEN	RS485◈	KBW	LASER EMULATION
Transmit UPC-A Check Digit	*	✓	✓	✓	✓	✓	✓
Transmit UPC-E Check Digit		✓	✓	✓	✓	✓	✓
Expand UPC-E		✓	✓	✓	✓	✓	✓
Convert UPC-A to EAN-13		✓	✓		✓	✓	
Transmit Lead Zero on UPC-E		✓	✓	✓	✓	✓	✓
Convert EAN-8 to EAN-13		✓	✓		✓	✓	
Transmit UPC-A Number System	*	✓	✓	✓	✓	✓	✓
Transmit UPC-A Manufacturer ID#	*	✓	✓	✓	✓	✓	✓
Transmit UPC-A Item ID#	*	✓	✓	✓	✓	✓	✓
Transmit Codabar Start/Stop Characters		✓	✓		✓	✓	
CLSI Editing (Enable)		✓	✓		✓	✓	
Transmit Mod 43 Check Digit on Code 39		✓	✓		✓	✓	
Transmit Code 39 Stop/Start Characters		✓	✓		✓	✓	
Transmit Mod 10/ITF		✓	✓		✓	✓	
Transmit MSI-Plessey Check Characters		✓	✓		✓	✓	
Parity	Space		✓				
Baud Rate	9600		✓				
8 Data Bits			✓				
7 Data Bits	*		✓				
Stop Bits	2		✓				
Transmit Sanyo ID Characters		✓	✓			✓	

◈ *Applicable for IBM® Host applications.*

DEFAULT SETTINGS - COMMUNICATION PARAMETERS

PARAMETER	DEFAULT	USB	RS232* OR RS232 TTL	LIGHT PEN	RS485◈	KBW	LASER EMULATION
Nixdorf ID		✓	✓			✓	
LRC Enabled		✓	✓			✓	
UPC Prefix		✓	✓			✓	
UPC Suffix		✓	✓			✓	
Transmit AIM ID Characters		✓	✓			✓	
STX Prefix		✓	✓			✓	
ETX Suffix		✓	✓			✓	
Carriage Return	*	✓	✓			✓	
Line Feed - disabled by default in KBW	*	✓	✓			✓	
Tab Prefix		✓	✓			✓	
Tab Suffix		✓	✓			✓	
“DE” Disable Command			✓				
“FL” Laser Enable Command			✓				
DTR Handshaking Support			✓				
RTS/CTS Handshaking			✓				
Character RTS/CTS	*		✓				
Message RTS/CTS			✓				
XON/XOFF Handshaking			✓				
ACK/NAK			✓				
Two Digit Supplements		✓	✓	as code 39	✓	✓	as code 39
Five Digit Supplements		✓	✓	as code 39	✓	✓	as code 39
Bookland		✓	✓	as code 39	✓	✓	as code 39
977 (2 digit) Supplemental Requirement		✓	✓	✓	✓	✓	✓

◈ *Applicable for IBM® Host applications.*

PARAMETER	DEFAULT	USB	RS232* OR RS232 TTL	LIGHT PEN	RS485◈	KBW	LASER EMULATION
Supplements are not Required	*	✓	✓	✓	✓	✓	✓
Two Digit Redundancy	*	✓	✓	✓	✓	✓	✓
Five Digit Redundancy		✓	✓	✓	✓	✓	✓
100 msec to Find Supplement Programmable in 100msec steps (MAX 800 msec)	*	✓	✓	✓	✓	✓	✓
Coupon Code 128		✓	✓	as code 39	✓	✓	as code 39
Programmable Code Lengths	7 avail.	✓	✓	✓	✓	✓	✓
Programmable Prefix Characters	10 avail.	✓	✓			✓	
Programmable Suffix Characters	10 avail.	✓	✓			✓	
Prefixes for individual Code Types		✓	✓			✓	
Editing		✓	✓	✓	✓	✓	✓
Inter Scan-Code Delay Programmable (100 µsec steps)	800 µsec					✓	
Function/Control Key Support						✓	
Minimum Element Width Programmable in 5.6 µsec steps	1 msec			✓			✓
Normal Depth of Field	*	✓	✓	✓	✓	✓	✓
Reduced Depth of Field		✓	✓	✓	✓	✓	✓
Sweet Spot Mode		✓	✓	✓	✓	✓	✓

◈ *Applicable for IBM® Host applications.*

Scanner Pinout Connections

The IS3480 scanner interfaces terminate to a 10-pin modular socket.
The serial number label indicates the interface enabled when the scanner is shipped from the factory.

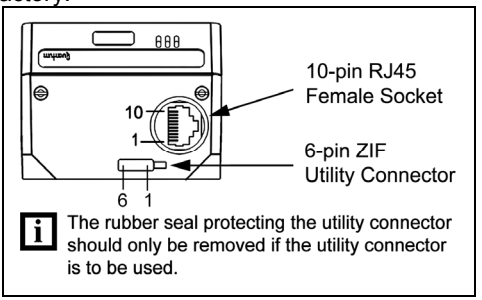


Figure 14.

IS3480-**47** Keyboard Wedge and Stand-Alone Keyboard	
Pin	**Function**
1	Ground
2	RS232 Transmit Output
3	RS232 Receive Input
4	PC Data
5	PC Clock
6	KB Clock
7	PC +5V
8	KB Data
9	+5VDC
10	Shield Ground

IS3480-**41** RS232 and Light Pen Emulation	
Pin	**Function**
1	Ground
2	RS232 Transmit Output
3	RS232 Receive Input
4	RTS Output
5	CTS Input
6	DTR Input/LTPN Source
7	Reserved
8	LTPN Data
9	+5VDC
10	Shield Ground

IS3480-**38** RS232 Low Speed USB	
Pin	**Function**
1	Ground
2	RS232 Transmit Output
3	RS232 Receive Input
4	RTS Output
5	CTS Input
6	D+
7	V_USB
8	D-
9	+5VDC
10	Shield Ground

IS3480-**11** RS485◈	
Pin	**Function**
1	Ground
2	RS232 Transmit Output
3	RS232 Receive Input
4	RTS Output
5	CTS Input
6	DTR Input
7	IBM B-Transmit
8	IBM A+ Receive
9	+5VDC
10	Shield Ground

◈ *Applicable for IBM® Host applications.*

Continued on next page.

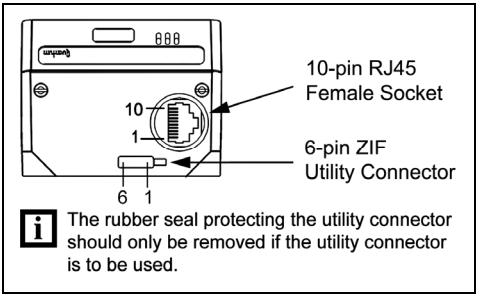


Figure 15.

IS3480-**104** RS232, RS232 TTL, or Laser Emulation	
Pin	**Function**
1	Ground
2	RS232 Transmit Output
3	RS232 Receive Input
4	RTS Output (TTL RS232) / Flip Sense
5	CTS Input (TTL RS232) / Trigger Emulation Output
6	DTR Input (TTL RS232) / Scan Enable
7	Receive (TTL RS232) / Good Read
8	Transmit (TTL RS232) / Scan Data
9	+5VDC
10	Shield Ground

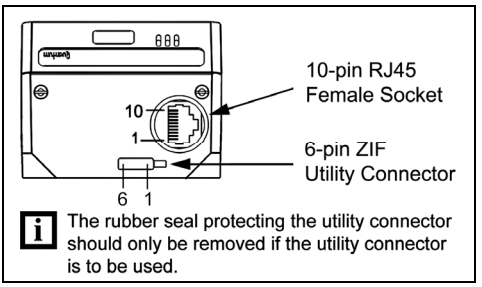


Figure 16.

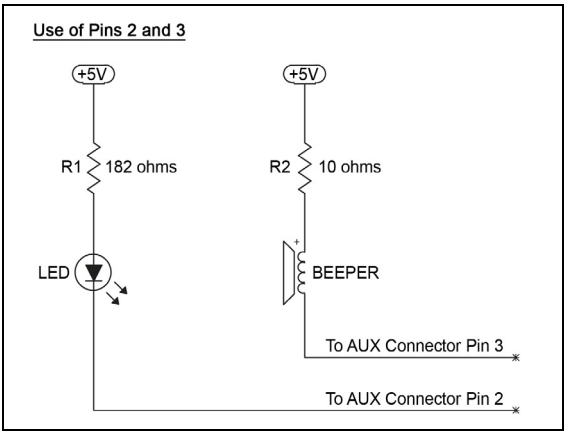
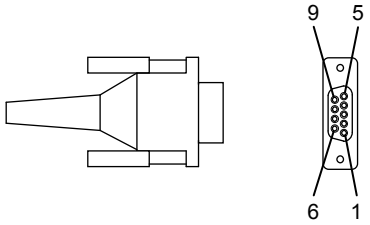


Figure 17.

Zero Insertion Force Connector (ZIF), 6-pin Utility Connector	
Pin	**Function**
1	Aux +5V: Power out. Can supply up to 100mA @ 5V.
2	Good Read: Open-collector output. Low-going 20mA output for duration of 32 ms at a baud rate of 9600. Represents a successful bar code read. Can be used to drive an external LED. Requires an external current limiting resistor of 182 ohms.
3	Aux Beeper: Open-collector output. Pulsed output (50mA sink current) at a frequency of 16.67 kHz for duration of 60 ms. Represents a successful bar code read. Can be used to drive an external beeper.
4	Aux Active: Active HIGH input signal for external trigger. A HIGH on this pin is equivalent to activating the scan push button.
5	Aux Out: Reserved.
6	Ground

Cable Connector Configurations (Host End)

"Standard" PowerLink Cable 53-53000x-3 *coiled* or 59-59000x-3 *straight*	
Pin	**Function**
1	Shield Ground
2	RS232 Transmit Output
3	RS232 Receive Input
4	DTR Input/Light Pen Source
5	Power/Signal Ground
6	Light Pen Data
7	CTS Input
8	RTS Output
9	+5VDC



9-Pin D-Type Connector

USB Power/Communication Cable *59-59235x-N-3*	
Pin	**Function**
1	PC +5V/V_USB
2	D-
3	D+
4	Ground
Shield	Shield

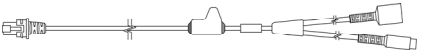
USB Non-Locking

Stand Alone Keyboard PowerLink Cable *59-59020x-3*	
Pin	**Function**
1	PC Data
2	No Connect
3	Power Ground
4	+5VDC PC Power to KB
5	PC Clock
6	No Connect

6-Pin Male Mini-DIN Connector

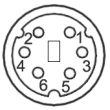
Cable Connector Configurations (Host End)

Keyboard Wedge PowerLink Cable *59-59002x-3*	
Pin	**Function**
1	Keyboard Clock
2	Keyboard Data
3	No Connect
4	Power Ground
5	+5 Volts DC



5-Pin DIN, Female

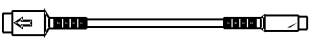
Pin	**Function**
1	PC Data
2	No Connect
3	Power Ground
4	+5 Volts DC
5	PC Clock
6	No Connect

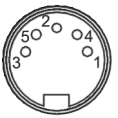


6-Pin DIN, Male

Honeywell will supply an adapter cable with a 5-pin DIN male connector on one end and a 6-pin mini DIN female connector on the other. According to the termination required, connect the appropriate end of the adapter cable to the PowerLink cable, leaving the necessary termination exposed for connecting to the keyboard and the keyboard port on the PC.

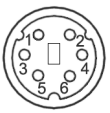
Keyboard Wedge Adapter Cable	
Pin	**Function**
1	PC Clock
2	PC Data
3	No Connect
4	Power Ground
5	+5 Volts DC





5-Pin DIN, Male

Pin	**Function**
1	Keyboard Data
2	No Connect
3	Power Ground
4	+5 Volts DC
5	Keyboard Clock
6	No Connect



6-pin Mini DIN, Female

Safety

ITE Equipment

IEC 60950-1: 2005+A11, EN 60950-1:2006+A11

Laser

Laser Class 1: IEC 60825-1:2007+A1+A2,
EN 60825-1:2007+A1+A2

⚠Caution

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser light exposure. Under no circumstances should the customer attempt to service the laser scanner. Never attempt to look at the laser beam, even if the scanner appears to be nonfunctional. Never open the scanner in an attempt to look into the device. Doing so could result in hazardous laser light exposure. The use of optical instruments with the laser equipment will increase eye hazard.

⚠Atención

La modificación de los procedimientos, o la utilización de controles o ajustes distintos de los especificados aquí, pueden provocar una luz de láser peligrosa. Bajo ninguna circunstancia el usuario deberá realizar el mantenimiento del láser del escáner. Ni intentar mirar al haz del láser incluso cuando este no esté operativo. Tampoco deberá abrir el escáner para examinar el aparato. El hacerlo puede conllevar una exposición peligrosa a la luz de láser. El uso de instrumentos ópticos con el equipo láser puede incrementar el riesgo para la vista.

⚠Attention

L'emploi de commandes, réglages ou procédés autres que ceux décrits ici peut entraîner de graves irradiations. Le client ne doit en aucun cas essayer d'entretenir lui-même le scanner ou le laser. Ne regardez jamais directement le rayon laser, même si vous croyez que le scanner est inactif. N'ouvrez jamais le scanner pour regarder dans l'appareil. Ce faisant, vous vous exposez à une rayonnement laser qú êst hazardous. L'emploi d'appareils optiques avec cet équipement laser augmente le risque d'endommagement de la vision.

⚠Achtung

Die Verwendung anderer als der hier beschriebenen Steuerungen, Einstellungen oder Verfahren kann eine gefährliche Laserstrahlung hervorrufen. Der Kunde sollte unter keinen Umständen versuchen, den Laser-Scanner selbst zu warten. Sehen Sie niemals in den Laserstrahl, selbst wenn Sie glauben, daß der Scanner nicht aktiv ist. Öffnen Sie niemals den Scanner, um in das Gerät hineinzusehen. Wenn Sie dies tun, können Sie sich einer gefährlichen Laserstrahlung aussetzen. Der Einsatz optischer Geräte mit dieser Laserausrüstung erhöht das Risiko einer Sehschädigung.

⚠Attenzione

L'utilizzo di sistemi di controllo, di regolazioni o di procedimenti diversi da quelli descritti nel presente Manuale può provocare delle esposizioni a raggi laser rischiose. Il cliente non deve assolutamente tentare di riparare egli stesso lo scanner laser. Non guardate mai il raggio laser, anche se credete che lo scanner non sia attivo. Non aprite mai lo scanner per guardare dentro l'apparecchio. Facendolo potete esporVi ad una esposizione laser rischiosa. L'uso di apparecchi ottici, equipaggiati con raggi laser, aumenta il rischio di danni alla vista..

EMC

Emissions
FCC Part 15, ICES-003, CISPR 22, EN 55022

Immunity
CISPR 24, EN 55024

NOTE: Immunity performance is not guaranteed for scanner cables greater than 3 meters in length when fully extended.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Class A Devices

The following is applicable when the scanner cable is greater in length than 3 meters (9.8 feet) when fully extended:
Les instructions ci-dessous s'appliquent aux cables de scanner dépassant 3 métres (9.8 pieds) de long en extension maximale:
Folgendes trifft zu, wenn das Scannerkabel länger als 3 Meter ist:

This equipment has been tested and found to comply with limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at their own expense. Any unauthorized changes or modifications to this equipment could void the user's authority to operate this device.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Notice
This Class A digital apparatus complies with Canadian ICES-003.

Remarque
Cet appareil numérique de classe A est conforme à la norme canadienne NMB-003.

European Standard

Warning This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Funkstöreigenschaften nach EN55022

Warnung! Dies ist eine Einrichtung der Klasse A. Diese Einrichtung kann im Wohnbereich Funkstörungen verursachen. In diesem Fall kann vom Betreiber verlangt werden, angemessene Massnahmen durchzuführen.

EMC

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Standard Europeo

Attenzione
Questo e' un prodotto di classe A. Se usato in vicinanza di residenze private potrebbe causare interferenze radio che potrebbero richiedere all'utilizzatore opportune misure.

Attention
Ce produit est de classe "A". Dans un environnement domestique, ce produit peut être la cause d'interférences radio. Dans ce cas l'utiliseteur peut être amené à predre les mesures adéquates.

Class B Devices

The following is applicable when the scanner cable is less than 3 meters (9.8 feet) in length when fully extended:

Les instructions ci-dessous s'appliquent aux cables de scanner ne dépassant pas 3 métres (9.8 pieds) de long en extension maximale:

Folgendes trifft zu, wenn das Scannerkabel kürzer als 3 Meter ist:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Notice
This Class B digital apparatus complies with Canadian ICES-003.

Remarque
Cet appareil numérique de classe B est conforme à la norme canadienne NMB-003.

LIMITED WARRANTY

Honeywell International Inc. ("HII") warrants its products and optional accessories to be free from defects in materials and workmanship and to conform to HII's published specifications applicable to the products purchased at the time of shipment. This warranty does not cover any HII product which is (i) improperly installed or used; (ii) damaged by accident or negligence, including failure to follow the proper maintenance, service, and cleaning schedule; or (iii) damaged as a result of (A) modification or alteration by the purchaser or other party, (B) excessive voltage or current supplied to or drawn from the interface connections, (C) static electricity or electro-static discharge, (D) operation under conditions beyond the specified operating parameters, or (E) repair or service of the product by anyone other than HII or its authorized representatives.

This warranty shall extend from the time of shipment for the duration published by HII for the product at the time of purchase ("Warranty Period"). Any defective product must be returned (at purchaser's expense) during the Warranty Period to HII factory or authorized service center for inspection. No product will be accepted by HII without a Return Materials Authorization, which may be obtained by contacting HII. In the event that the product is returned to HII or its authorized service center within the Warranty Period and HII determines to its satisfaction that the product is defective due to defects in materials or workmanship, HII, at its sole option, will either repair or replace the product without charge, except for return shipping to HII.

EXCEPT AS MAY BE OTHERWISE PROVIDED BY APPLICABLE LAW, THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER COVENANTS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, ORAL OR WRITTEN, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT.

HII'S RESPONSIBILITY AND PURCHASER'S EXCLUSIVE REMEDY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT WITH NEW OR REFURBISHED PARTS. IN NO EVENT SHALL HII BE LIABLE FOR INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, AND, IN NO EVENT, SHALL ANY LIABILITY OF HII ARISING IN CONNECTION WITH ANY PRODUCT SOLD HEREUNDER (WHETHER SUCH LIABILITY ARISES FROM A CLAIM BASED ON CONTRACT, WARRANTY, TORT, OR OTHERWISE) EXCEED THE ACTUAL AMOUNT PAID TO HII FOR THE PRODUCT. THESE LIMITATIONS ON LIABILITY SHALL REMAIN IN FULL FORCE AND EFFECT EVEN WHEN HII MAY HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH INJURIES, LOSSES, OR DAMAGES. SOME STATES, PROVINCES, OR COUNTRIES DO NOT ALLOW THE EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

All provisions of this Limited Warranty are separate and severable, which means that if any provision is held invalid and unenforceable, such determination shall not affect the validity of enforceability of the other provisions hereof. Use of any peripherals not provided by the manufacturer may result in damage not covered by this warranty. This includes but is not limited to: cables, power supplies, cradles, and docking stations. HII extends these warranties only to the first end-users of the products. These warranties are non-transferable.

The duration of the limited warranty for the IS3480 is three (3) year(s). The accessories have a 90 day limited warranty from the date of manufacture.

PATENTS

For patent information, please refer to www.honeywellaidc.com/patents.

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Technical Assistance

If you need assistance installing or troubleshooting your device, please call your distributor or the nearest technical support office:

North America/Canada
Telephone: (800) 782-4263
E-mail: hsmnasupport@honeywell.com

Latin America
Telephone: (803) 835-8000
Telephone: (800) 782-4263
E-mail: hsmlasupport@honeywell.com

Brazil
Telephone: +55 (11) 5185-8222
Fax: +55 (11) 5185-8225
E-mail: brsuporte@honeywell.com

Mexico
Telephone: 01-800-HONEYWELL (01-800-466-3993)
E-mail: soporte.hsm@honeywell.com

Europe, Middle East, and Africa
Telephone: +31 (0) 40 7999 393
Fax: +31 (0) 40 2425 672
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E-mail: aptechsupport@honeywell.com

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Fax: +86-512-6762-2560
E-mail: aptechsupport@honeywell.com

Japan
Telephone: +81-3-3839-8511
Fax: +81-3-3839-8519
E-mail: aptechsupport@honeywell.com

Online Technical Assistance

You can also access technical assistance online at www.honeywellaidc.com.

Product Service and Repair

Honeywell International Inc. provides service for all its products through service centers throughout the world. To obtain warranty or non-warranty service, contact the appropriate location below to obtain a Return Material Authorization number (RMA #) before returning the product.

North America
Telephone: (800) 782-4263
E-mail: hsmnaservice@honeywell.com

Latin America
Telephone: (803) 835-8000
Telephone: (800) 782-4263
Fax: (239) 263-9689
E-mail: laservice@honeywell.com

Brazil
Telephone: +55 (11) 5185-8222
Fax: +55 (11) 5185-8225
E-mail: brservice@honeywell.com

Mexico
Telephone: 01-800-HONEYWELL (01-800-466-3993)
Fax: +52 (55) 5531-3672
E-mail: mxservice@honeywell.com

Europe, Middle East, and Africa
Telephone: +31 (0) 40 2901 633
Fax: +31 (0) 40 2901 631
E-mail: euroservice@honeywell.com

Hong Kong
Telephone: +852-29536436
Fax: +852-2511-3557
E-mail: apservice@honeywell.com

Singapore
Telephone: +65-6842-7155
Fax: +65-6842-7166
E-mail: apservice@honeywell.com

China
Telephone: +86 800 828 2803
Fax: +86-512-6762-2560
E-mail: apservice@honeywell.com

Japan
Telephone: +81-3-3839-8511
Fax: +81-3-3839-8519
E-mail: apservice@honeywell.com

Online Product Service and Repair Assistance

You can also access product service and repair assistance online at www.honeywellaidc.com.

Honeywell Scanning & Mobility
9680 Old Bailes Road
Fort Mill, SC 29707
www.honeywellaidc.com

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